

SHALL ARCHITECTS BE ROYAL ACADEMICIANS?

SIR,—Every thing that appears in the *Art-Union Journal* is usually written in so liberal a spirit, and with such evident desire to encourage a love of arts, as to deserve praise; but I must own, that an article in the number for December appears to me to be a departure from the usual course. I refer to a notice of the election of two gentlemen to fill up vacancies in the Royal Academy, one an artist, the other an architect; the appointment of the first is cordially assented to, but to the architect objection is made in the following terms:—"Such rewards as the Academy have to bestow should not be conferred upon those who not only receive honours from societies formed by their own profession, and generally obtain very profitable employments, but who do nothing to uphold the Academy, to augment its funds, or to extend its fame. The power to admit architects at all arises out of one of the old laws of the Royal Academy that ought to be abrogated; it might have been necessary in former times so to recruit their members, as regiments do, by taking men under arms, when applicants for enlistment grow scarce; but no such motive can be now assigned for so completing a corps, consisting of forty, or at best sixty members."

"Men under arms," the expression is not a happy one, to say the least of it. Are such men as Wren, Vanbrugh, Hawksmoor, Soane, and others, to be considered as "under arms"? Their works are known and appreciated not only in England but by all Europe. Surely, then, they have a right to share in every honour which the societies of their country can bestow.

But we are told that they "do nothing to uphold the Academy, augment its funds, or extend its fame." I must confess I do not clearly understand why an architect should not do all this as well as an artist. Will not the designing of, and carrying on successfully to its completion, such a building as the Houses of Parliament, do as much towards extending the fame of the Academy (being the work of one of its body), as any painting or piece of sculpture ever produced by it. I really must still continue to think so, despite of all written in the *Art-Union Journal*, which also tells us that architects should not be admitted into the Academy, because "they not only receive honours from societies formed by their own profession, but generally obtain very profitable employment." As to the first point, I think I may safely assert that there is no society belonging exclusively to architects (I say it with all respect to the Architects' Institute), that can confer the same distinction as the Royal Academy; and as to the emolument, I am not clear that an artist of eminence does not obtain employment quite as profitable as any architect of equal standing.

My opinion, and I think I shall find many to agree with me, has always been, that architecture, painting, and sculpture, are each seen to the best advantage when they combine to produce one perfect whole. What says Sir Henry Wotton? "Painting and sculpture are two arts attending on architecture, like two of her principal gentlewomen to tire out their mistresses." Let them, then, share equally in all the honours the Academy can confer.

It is hardly necessary to observe that the object of this communication is not to advance the architect at the expense of the artist, but merely to reply to an article which distinctly states, that the former should no longer occupy a position in which he was only placed, because forty artists of sufficient merit could not be found to fill the ranks of the Academy.

I am, Sir, &c.

W. C.

VENTILATION.—SIR: I have read with much satisfaction your correspondent "A's" observations on ventilation (p. 580 ante); but, in order to accomplish this effectually, it is essential that a current of air should be admitted at the level of the floor by air-gratings, covered internally with perforated zinc, in order to produce an action in the air, which would then be carried off most effectually by the inverted funnels. In public rooms it would be found of the greatest service to place the gas-lights under these funnels, which would not only assist in carrying off the foul air, but would tend materially towards the ventilation.—A SUBSCRIBER

MOVEMENT OF CYLINDERS OVER ROADS.

AN ANSWER TO "J. W.'s" PROBLEM.

SIR,—Your correspondent supposing "P lbs raised one foot high per minute represented the power required to roll a certain cylinder over a certain uniform inflexible road at a given rate; also p lbs raised one foot high per minute represented a power required to crush a certain uniform substance placed equally throughout upon that road,"—asks,—

"Would (however great the diameter of the cylinder, and however great its weight), as much power as (P + p) lbs. raised one foot high per minute be required to roll the said cylinder on the said road over the said substance at the given rate, the substance being crushed thereby?"

Now, let us suppose that

(P) = power required when once the cylinder is started to keep it moving at a given rate, and at the same time crushing the substance placed as aforesaid;

(M) = momentum;

(W) = weight;

(V) = velocity;

Then P' will = (P + p - m)

Now we know that (M) = (W × V)

∴ the Δ the size of the cylinder, the Δ will (W) become, and consequently the Δ will be the value of (M).

Whence, the Δ the amount of crushing power elicited from (M), the Δ will be the quantity required of (p).

∴ (p - m) = crushing power.

Now, it is a known law of mechanics, that (M) can never be made available without a proportionate decrease in (V).

But here we have (V) uniform throughout.

∴ (M) is useless as a crushing power,

and ∴ (P') = (P + p).

Hence we deduce, that (P + p) will always remain the same, when V is the same throughout.

Your correspondent again supposes, "The power required to roll any cylinder over a given quantity of that substance (placed as aforesaid) in a given time be represented by (P + p) lbs. raised one foot high per minute, where (P) denotes the same as before."—and asks,—

"Would the value of (x) be less the greater the diameter of the cylinder (or the greater the value of (P), supposing that the road substance and rate of motion remained the same."

Now, making the same suppositions as before with regard to P', M, W, and V respectively, we shall have again

P' = (P + x - m).

Now we have seen in our last, that the Δ the diameter of the cylinder the Δ does the value of (M) become. And we have also seen that however great the value of (M) may be, it can be of no avail without a proportionate decrease of (V). But here again (V) is always the same.

∴ (P') = (P + x)

Hence we deduce the following:—

The power required to start, and then to keep a cylinder of any size in motion, while crushing a uniform substance at the same time, is always the same when V always continues the same; or, in other words (P') = (P + x) when V is uniform. E. A.

THE BUILDING TRADE—COMPETITION.

SIR,—For the credit of the builders, both great and small, I am constrained to depart for once from my usual course, and notice the remarks of "A Surveyor," in your last publication, upon "the state of the building trade." I do not know that I should have done so, but that it is not the first occasion in which the builders have been charged with suicide on the one hand and dishonesty on the other, and, as silence is said to give consent, I venture to state the result of some twenty-five years' experience with reference to the general practice of competition, as demanded by the public with respect to building, and the principles by which respectable builders are influenced in proposing tenders.

In the first place, the "Surveyor" has properly condemned the all prevalent practice

of competition, but I would remind him that the practice is prevalent in almost all trades, and certainly not within the power, as I humbly conceive, of the builders, to control, or they would most readily adopt any reasonable and feasible mode of avoiding so great an evil. The architects, as a body, are the only parties to whom we can look for any help in this matter, and they, I fear, like ourselves, think too much upon self-interest to act upon any general agreement with respect to the system. We must therefore, I conclude, conform with as good a grace as possible to the spirit of the times, and if the public will have competition, give it them, as little to our own inconvenience and cost as may be. As to the "Surveyor's" proposition of each builder taking out his own quantities, it can easily be shown that, owing to the universality of competition, and the certainty that not one in ten is successful, it would not answer the builder's purpose to keep such an establishment as would enable him to enter into the details of every contract offered to his consideration,—added to which I have found in bygone days such serious practical inconvenience arising from the employment of so many cooks in one potage, that I am sure that all who have had practical acquaintance with the old custom in this respect, will give the preference to the prevailing practice of two respectable and responsible surveyors being employed to ascertain the correct quantities for all the competitors, and by which means only the competition becomes one of price and not of quantity. According to the old plan, the party who made the greatest blunder was generally the successful competitor. In illustration, I know of one who left out the entire finishings of a large public hall, and another who omitted the Yorkshire paving of the whole of the cells and airing-yards of a large prison! I need scarcely say both parties were successful. With regard to the "Surveyor's" charge of nominal amounts being given in competition by respectable builders, and of the plunder being divided, I submit that the statement is too preposterous to receive credit or to need refutation. I will, however, add that whenever any thing like a nominal tender has been given, if at all, it must have occurred in one of two ways,—either the party has been fearful of appearing indifferent to the notice of the architect who has requested his tender, or he has felt his chance of success so distant, from the number of parties who are sometimes called upon to enter the lists, that he has perhaps given a nominal amount to avoid a certain and useless expenditure. That either of these cases has been a fraud upon the public or breach of faith with the architect, I deny, as there are always too many to be found ready and willing to contend for the prize, and too little inclined to engage in general agreement for each other's benefit.

I should indeed be glad if it were in my power to offer any suggestion whereby the interests of the trade, to which I have the honour to belong, might be brought back to its pristine simplicity and healthfulness, but I fear we have too long lost sight of the good old-fashioned ways to return to the good old days of "live and let live."—I am, Sir, &c.,

Dec. 15, 1847.

A BUILDER.

NEW METROPOLITAN SEWERS' COMMISSION.

COST OF SEWERS.

SIR,—I was present at the first general court of the Metropolitan Commissioners of Sewers on the 16th inst., and (bearing testimony to the faithfulness of the report in THE BUILDER of this day, of the proceedings of the court in all other respects) I beg permission to point out a typographical error, which, though very small, is of much importance. "With" is, in one place, printed for "or." In p. 606, col. 1, you have "an efficient sewer could be formed at the cost of 2l. 2s. per house, with" (this should be or) an annual charge of 3s. per house. I have had opportunities of ascertaining what has been proposed (for I do not understand that the Commissioners have yet decided) on the matter, and it seems that an idea is entertained that one of the greatest obstacles to an effective system of house-drainage consists in the imposing of the total expense as a single year's burden on the property. In many cases lessees of houses are bound to pay the sewers' rate. They may have only a few years' in-